



Chapter 4

RENAISSANCE OF A RIVER

“Don’t let anybody tell you that the basic engineering for this project has been worked out.”

With those words from the Corps’ engineers still fresh in his memory, Brig. Gen. William Whipple, Jr., arrived in Tulsa as Southwestern Division commander. His number one job was to expedite waterway construction, to solve problems he had declared unsolvable.

It was 1958, a year since the navigation system’s construction had begun, and ironically the year that Newt Graham died.

Whipple hit what he called a “formidable wall of unsolved technical problems. This may be one of the most complicated projects the Corps of Engineers has ever undertaken.”¹

He had, in fact, opposed the project throughout his career in the Corps’ Washington office.

“I was one of the group that put the Arkansas navigation project on the shelf some years ago,” he conceded to the Tulsa Chamber of Commerce in 1958. “Now [that] the Congress has decided on its construction, there is to be no further discussion or delay. My mission is to build the project just as well and as rapidly as I can. You can count on me for that.”²

Whipple had been sent to the Southwestern Division because of his knowledge of sediments, and he was determined to find a solution to the sediment problem. He hired three consultants and organized them as the Arkansas River Sediment Board. One of them, who followed the project throughout its construction, was Prof. Hans Albert Einstein, son of the famed scientist Albert Einstein. Prof. Einstein, according to one observer, wanted to specialize in something more challenging than his father’s work — so he devoted his life to studying sediment.

This sediment group’s objective was to get control of the meandering river and let it cleanse itself. In essence, major reaches of the river would be deepened, straightened, and narrowed down by the judicious placement of rocks and timbers, thus stabilizing banks and making the river flow faster. They hoped the faster waters would flush out sediments that otherwise would settle, shoal, and require constant dredging.

The plan was tested by the Waterways Experiments Station at Vicksburg. Not only did it work, but \$31 million could be saved by cutting out four upstream sediment-trap dams.

It would be sometime later, well into construction, before Whipple could write with “a profound sense of relief that this great project, unprecedented in character, is adhering to the early estimates and even indicating the possibility of savings.”³

It was like

RACING AGAINST THE CLOCK,

and in one man’s opinion, building the waterway became more a matter of economics than engineering. That was how Whipple’s replacement, Maj. General Robert J. Fleming, put it.

“Nuts,” he told the Arkansas Basin Development Association in November 1960. “If you give us the money, we will expedite the program and could finish it in 1967.”

Kerr took that as a challenge and after some negotiations agreed to a 1970 completion date. He not only promised to obtain funding, he delivered so well that, at times, funding exceeded the Corps’ capability to use it.⁴ The combination of Kerr and President Kennedy proved powerful; “What Kerr wants Kennedy gets,” observers said.⁵

Now the race against the clock was underway. In April 1961 the Tulsa District was given responsibility for planning and designing all locks and dams except the Dardanelle in Arkansas. The Tulsa District established a new Design Branch in its Engineering Division and recruited engineers from around the nation.

The construction schedule was sacrosanct, with the Tulsa District responsible for building all locks and dams in Oklahoma and the Little Rock District handling those in Arkansas. Military work was shifted from the Tulsa District, in recognition of its heavy civil workload that sometimes



1988: Barging ahead on the Arkansas River Navigation System, this photo shows the largest tow ever on the waterway, shown here by the Highway 51 bridge.

Far left: 1956 ground breaking for Keystone Dam were, left to right: Cleo Engle, Col. Wilson, Col. Bristol, Gov. Raymond Gary, Sen. Bob Kerr, Rep. Page Belcher, and Gary Vandever.